REMARKS

After the foregoing amendments, claims 1 through 16 are currently pending in this application. Claims 1, 11 and 15 have been amended to more clearly define the scope of the present invention. Applicant submits that no new matter has been introduced into the application by these amendments.

Claim Rejections - 35 U.S.C. § 103(a)

Examiner has rejected claims 1-16 under 35 U.S.C. §103(a) as being unpatentable over International Publication No. WO 02/15326 A2 to Shapira, Joseph (hereinafter "Shapira") in view of U.S. Patent Publication No. 2005/0130693 to Malladi et al. (hereinafter "Malladi").

Claim 1 of the present invention recites a radio network controller (RNC) configured to generate tilt information for dynamically tilting a beam considering an effect that tilting a beam may have on other base stations to optimize transmission between the base station and a WTRU.

As indicated by the Examiner, Shapira fails to specifically disclose an RNC configured to generate tilt information for dynamically tilting at least one beam considering an effect that tilting a beam may have on other base stations to optimize transmission between the base station and at least one WTRU. However,

the Examiner asserts that Malladi teaches an RNC for controlling the dynamic adjustment of the beam. The Applicant respectfully disagrees.

The portions (paragraphs 0022-0024) of Malladi cited by the Examiner disclose that an RNC monitors the strength of a pilot signal to measure channel quality in a link imbalance condition. The measured pilot strength can then be used to determine whether to increase or decrease the target pilot SNR threshold (paragraph 0022). More specifically, Malladi discloses the following:

> Node-B can be a device a cellular base station having beam-forming antennas that services various sectors of a cell. In this case, the functions of the RNC can be performed in the base station serving the UE for a link imbalance between sectors of the same base station. (See paragraph 0028, emphasis added)

Malladi fails to, either alone or in combination with Shapira, disclose an RNC configured to generate tilt information for dynamically tilting a beam considering an effect that tilting a beam may have on other base stations.

In addition, Malladi fails to teach issuing instructions from the RNC to a base station accounting for timing considerations. The claimed invention allows for reaction discrepancies between the issuance of tilt information at the RNC and base station. More specifically, claim 1 of the present invention discloses, "a radio network controller (RNC) configured to generate tilt information for dynamically tilting at least one beam considering an effect that tilting a beam may have on other base stations to optimize transmission and allow for reaction discrepancies between

the base station and at least one WTRU" (emphasis added). This arrangement is used with respect to frequency allocation wherein an RNC allocates available frequencies to each base station controlled by the RNC. The base stations are then free to utilize their allocated frequencies as they deem best, subject to any reallocations performed by the RNC based on the RNC's overall view of the base stations under its control. Neither Malladi nor Shapira discloses or teaches an RNC allocating general resources and adjustment permitting reaction discrepancies between the issuance of tilt information at the RNC and the base station.

Accordingly, claim 1 and its dependent claims, claims 2-10, are not unpatentable over Shapira in view of Malladi.

With respect to claim 11, claim 11 as presently amended recites the steps of an RNC computing tilt information in real-time based on actual conditions in a wireless communication system considering an affect that tilting a beam may have on other base stations under the control of the RNC and the base station dynamically adjusting a beam in a vertical dimension based on tilt information.

Claim 11 recites the same elements as claim 1. According to the arguments presented above, it is believed that claim 11 and its dependent claims, claims 12-14 are not unpatentable over Shapira in view of Malladi.

With respect to claim 15, claim 15 recites a base station configured to dynamically adjust a beam in at least a vertical dimension based on tilt information

which is generated by considering an affect that tilting a beam may have on other base stations to optimize transmission between the base station and at least one WTRU. As stated above, Malladi is related to transmit power control in a link imbalance condition and the cited portion of Malladi does not teach a base station configured to generate tilt information considering an affect of beam tilting on other base stations. The claimed feature is not disclosed in Shapira or in Malladi.

Accordingly, claim 15 and its dependent claim, claim 16, are not unpatentable over Shapira in view of Malladi. Withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

Accordingly, it is respectfully submitted that claims 1 through 16 are not obvious over Shapira in view of Malladi.

In view of the foregoing amendment and remarks, Applicant respectfully submits that the present application, including claims 1 through 16, is not obvious over Shapira in view of Malladi and is in condition for allowance. A notice to that effect is respectfully requested.

Respectfully submitted,

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